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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,033	02/09/2004	Lee Watts	67341-1985; 03MRA0135	6920
76799	7590	01/25/2010		
PAMELA A. KACHUR 577 W Santee Drive Greensburg, IN 47240			EXAMINER FOX, JOHN C	
			ART UNIT 3753	PAPER NUMBER
			MAIL DATE 01/25/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/775,033

Applicant(s)

WATTS ET AL.

Examiner

John Fox

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

In response to the decision by the Board of Patent Appeals and Interferences of September 25, 2009, PROSECUTION IS REOPENED. The Examiner was aware of Prior Art material to the Examination of this application prior to the decision of the Board. Authorization to reopen prosecution has been given by the Group Director, who has signed below.

/KAREN M. YOUNG/

Director, Technology Center 3700

The claims of record are those filed in the amendment of March 27, 2006.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 23 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no original disclosure that running clearance R forms a fluid seal as recited in the claim. Running clearance R is disclosed as a centering mechanism.

Claim 23 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

There is no enabling disclosure of how to form a fluid seal by providing a clearance between the washer and the valve spindle. One of ordinary skill in the art would recognize the recited clearance as a leakage path between the washer and spindle.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 10, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8, 10, and 18 contain the apparent trademark/trade names "Inconel" and "Werkstoff No. 1.4122 or 1.4104". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe materials of manufacture and, accordingly, the identification/description is indefinite.

Claims 10 and 18 are rejected as being indefinite in that it is unclear what the subject matter is. Werkstoff No. 1.4122 or 1.4104 is not explained in the specification and are not commonly known in this country.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, and 9-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Cook et al (US 5,401,001).

Cook et al show a gas exhaust valve with a steel bearing 28 pressed into hole 52, a steel valve spindle 24 with a shoulder 24d, a plate 32, and ceramic washers 38, 40. Bellows 44 acts as a spring to bias washers 38, 40 into sealing engagement with opposite ends of the bearing. Washer 38 is read as being part of the valve spindle since shoulder 24D acts on it to work together to seal on the bearing. The steel spindle and bearing are read as being Werkstoff No. 1.4122 or 1.4104 in view of the high temperature steel components disclosed in Cook et al. As to claim 5, 62 is read as a nut integrally mounted on the shaft. As to claims 11 and 12, Cook et al shows two embodiments of the plate, the first is read as eccentric and the second in Figures 10-12 is read as concentric.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 and 18 are, in the alternative, rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al.

Official notice is taken that Werkstoff No. 1.4122 or 1.4104, whatever that might mean, was known at the time of the instant invention in view of the nature of the disclosure. The provision of Werkstoff No. 1.4122 or 1.4104 for the high temperature steel components disclosed by Cook et al is considered an obvious matter of design since Werkstoff No. 1.4122 or 1.4104 relates to high temperature steel.

Claims 11-12 are, in the alternative, rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al.

In the event that Cook et al does not disclose both an eccentric and a concentric plate, Cook et al does disclose at least one of them. The use of the other is considered an obvious matter of design choice in that applicant has admitted that Figure 3 and Figures 4-5 are not patentably distinct.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al in view of Fodor et al (US 5,496,142).

Cook et al show the claimed valve except for a spring washer. Fodor et al show an Inconel spring washer for high temperature applications. It would have been obvious at the time the invention was made for one of ordinary skill in the art to substitute the spring washer of Fodor et al for the diaphragm spring of Cook et al under the rationale set forth in KSR v. Teleflex, U.S._____, 127 S. Ct. 1727, 82 U.S.P.Q. 2d 1835 (2007) that

the simple substitution of one known element for another to obtain predictable results is an indication of obviousness. In this case the predictable result of such a substitution is that the washers 38, 40 would be biased to seal against the bearing in the high temperature environment of the exhaust gas valve.

Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al in view of Ong et al (US 5,645,900).

Cook et al show the claimed valve except for ceramic coatings. Ong et al teach a ceramic coating for, inter alia, bearings and teach multiple coatings of titanium nitride on a metal substrate. It would have been obvious at the time the invention was made for one of ordinary skill in the art to use such a plurality of coatings on a metal substrate in place of the ceramic washers of Cook et al under the rationale set forth in *KSR v. Teleflex, U.S.____, 127 S. Ct. 1727, 82 U.S.P.Q. 2d 1835 (2007)* that the simple substitution of one known element for another to obtain predictable results is an indication of obviousness. In this case the predictable result of such a substitution is washers that seal against the bearing.

Claims 1 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al in view of Bartz (US 1,911,787).

Cook et al shows the claimed valve except for the conical secondary sealing and bearing surfaces. Bartz shows a similar valve with an integral bearing 17 and a bushing 45, which is read as a seal, having a conical shape spring biased into a conical bearing surface, unlabeled, of the bearing, see Figure 3. It would have been obvious at the time the invention was made for one of ordinary skill in the art to have used such a conical

sealing and bearing configuration as taught by Bartz with the valve of Cook et al to under the rationale set forth in KSR v. Teleflex, U.S.____, 127 S. Ct. 1727, 82 U.S.P.Q. 2d 1835 (2007) that the simple substitution of one known element for another to obtain predictable results is an indication of obviousness. In this case the predictable result is a seal against the bearing.

Claims 1, 5, and 9-18, in the alternative, and 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thauer in view of Cook et al.

Thauer shows the claimed exhaust gas valve except for a washer with a secondary sealing surface cooperating with a secondary bearing surface, a press fit bearing, and steel components.

Cook et al teach a valve of the same configuration with a washer 40 with a sealing surface cooperating with a bearing surface of bearing 28. It would have been obvious at the time the invention was made for one of ordinary skill in the art to have used a washer which sealed on the bearing of Cook et al to similarly seal against the bearing thereof.

It would have been obvious at the time the invention was made for one of ordinary skill in the art to use a press fit bearing as taught by Cook et al in the valve of Thauer under the rationale set forth in KSR v. Teleflex, U.S.____, 127 S. Ct. 1727, 82 U.S.P.Q. 2d 1835 (2007) that the simple substitution of one known element for another to obtain predictable results is an indication of obviousness.

It would have been obvious at the time the invention was made for one of ordinary skill in the art to have used high temperature steel in the valve of Thauer,

including Werkstoff No. 1.4122 or 1.4104, in view of the high temperature environment of the Thauer valve.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thauer in view of Cook et al as applied above and further in view of Fodor et al.

Thauer, as modified by Cook et al, show the claimed valve except for a spring washer. Fodor et al show an Inconel spring washer for high temperature applications. It would have been obvious at the time the invention was made for one of ordinary skill in the art to substitute the spring washer of Fodor et al for the spring of Thauer, as modified, under the rationale set forth in *KSR v. Teleflex*, U.S.____, 127 S. Ct. 1727, 82 U.S.P.Q. 2d 1835 (2007) that the simple substitution of one known element for another to obtain predictable results is an indication of obviousness. In this case the predictable result of such a substitution is that the washers 38, 40 would be biased to seal against the bearing in the high temperature environment of the exhaust gas valve.

Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thauer in view of Cook et al as applied above and further in view of Ong et al.

Thauer, as modified by Cook et al, show the claimed valve except for ceramic coatings. Ong et al teach a ceramic coating for, inter alia, bearings and teach multiple coatings of titanium nitride on a metal substrate. It would have been obvious at the time the invention was made for one of ordinary skill in the art to used such a plurality of coatings with the bearings surfaces of Thauer, as modified, under the rationale set forth in *KSR v. Teleflex*, U.S.____, 127 S. Ct. 1727, 82 U.S.P.Q. 2d 1835 (2007) that the simple substitution of one known element for another to obtain predictable results is an

indication of obviousness. In this case the predictable result of such a substitution is a face that seals against the bearing.

Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thauer in view of Cook et al as applied above and further in view of Bartz (US 1,911,787).

Thauer, as modified by Cook et al, shows the claimed valve except for the conical secondary sealing and bearing surfaces. Bartz shows a similar valve with an integral bearing 17 and a bushing 45, which is read as a seal, having a conical shape spring biased into a conical bearing surface, unlabeled, of the bearing, see Figure 3. It would have been obvious at the time the invention was made for one of ordinary skill in the art to have used such a conical sealing and bearing configuration as taught by Bartz with the valve of Thauer, as modified, under the rationale set forth in *KSR v. Teleflex*, U.S.____, 127 S. Ct. 1727, 82 U.S.P.Q. 2d 1835 (2007) that the simple substitution of one known element for another to obtain predictable results is an indication of obviousness. In this case the predictable result is a seal against the bearing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fox whose telephone number is 571-272-4912. The examiner can normally be reached on Monday-Saturday from 10am-6pm (Hoteling Program).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Fox/
Primary Examiner
Art Unit 3753